

### REMARKS

The applicant has carefully considered the official action and the references it cites. In the official action, claims 1-3, 5, 8-13, 22-24, 26, 29-34, and 36-38 were rejected as unpatentable over Goertzen in view of Furlan et al. (U.S. 5, 652, 581) and claims 4, 6, 7, 14-21, 25, 27, 28, 35, and 39-41 were objected to as being dependent on rejected claims but allowable if rewritten in independent form.

Turning to the art rejections, the applicant notes that the examiner agrees that Goertzen fails to teach or suggest an encoder that calculates an entropy value associated with at least a portion of a signal and encodes the signal to include the calculated entropy value so that an output of the encoder carries the encoded signal, which includes the calculated entropy value, as recited in independent claim 1. On the contrary, Goertzen merely teaches using an entropy encoding technique to vary the number of bits used to represent transmitted symbols. In other words, Goertzen teaches that length of a code or symbol may be related to signal entropy.

The examiner acknowledges that Goertzen fails to “explicitly disclose the output signal (encoded signal) includes the calculated entropy value,” and alleges that Furlan et al. address this deficiency of Goertzen by disclosing that the “entropy of the signal is represented as the code length of the signal (amount of bits used to encode the signal).” The examiner contends that in view of the disclosure of Furlan et al. and that because the entropy value of a signal can be determined using code length information, it would have been obvious to one of ordinary skill in the art at the time of the invention that the calculated entropy value is included in the encoded signal disclosed by Goertzen in the form of a code length.

The applicant respectfully submits that the examiner’s use of Goertzen in combination with Furlan et al. as noted above does not render the subject matter recited in claim 1

obvious. While the applicant acknowledges that both Goertzen and Furlan et al. teach that the length of a code may be varied based on signal entropy, thereby establishing a relationship between signal entropy and code length, no combination of these references teaches or suggests including a calculated entropy value in the encoded signal, as recited in claim 1. The examiner attempts to support his position by stating that “by simply looking at the code length of a signal, the entropy value can be determined.” However, the examiner’s position is facially deficient because it requires the entropy value to be determined (i.e., calculated) based on code length, thereby clearly indicating that such a calculated value has not been included in the encoded signal as recited in claim 1. Thus, not only do the encoding techniques taught by Goertzen and Furlan et al. not include an entropy value in the encoded signal but, as pointed out by the examiner, a further determination or calculation would be required to obtain an such an entropy value. Contrary to the examiner’s position, at most, the encoding techniques taught by Goertzen and Furlan et al. teach including a code in a signal, where the code has a length that may be related to an entropy of the signal.

For at least the foregoing reasons, the examiner’s apparent contention that including a code having a length in a signal is the same as including a calculated entropy value in the signal is unfounded in view of the cited references and, thus, appears to be impermissible use of hindsight. Accordingly, the applicant respectfully requests withdrawal of the outstanding obviousness rejections based on these references and allowance of the rejected claims.

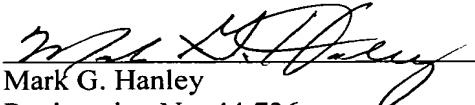
The remaining claims 11-41 are also allowable for at least the reasons set forth above. Accordingly, for at least the foregoing reasons, the applicant submits that all of the claims pending in the instant application are now in condition for allowance. Reconsideration is respectfully requested.

If there are any remaining issues in this application, the examiner is requested to  
contact the undersigned at the telephone number below.

Respectfully submitted,

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